

# Socioeconomic Position and Pulmonary Health

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## BACKGROUND

Social differences in lung functioning have been reported previously but the assessment of the role of socioeconomic position (SEP) at different stages of life, particularly in Central and Eastern Europe, is less well understood. This study addressed these two issues by focusing on adults from the HAPIEE study.

## OBJECTIVES

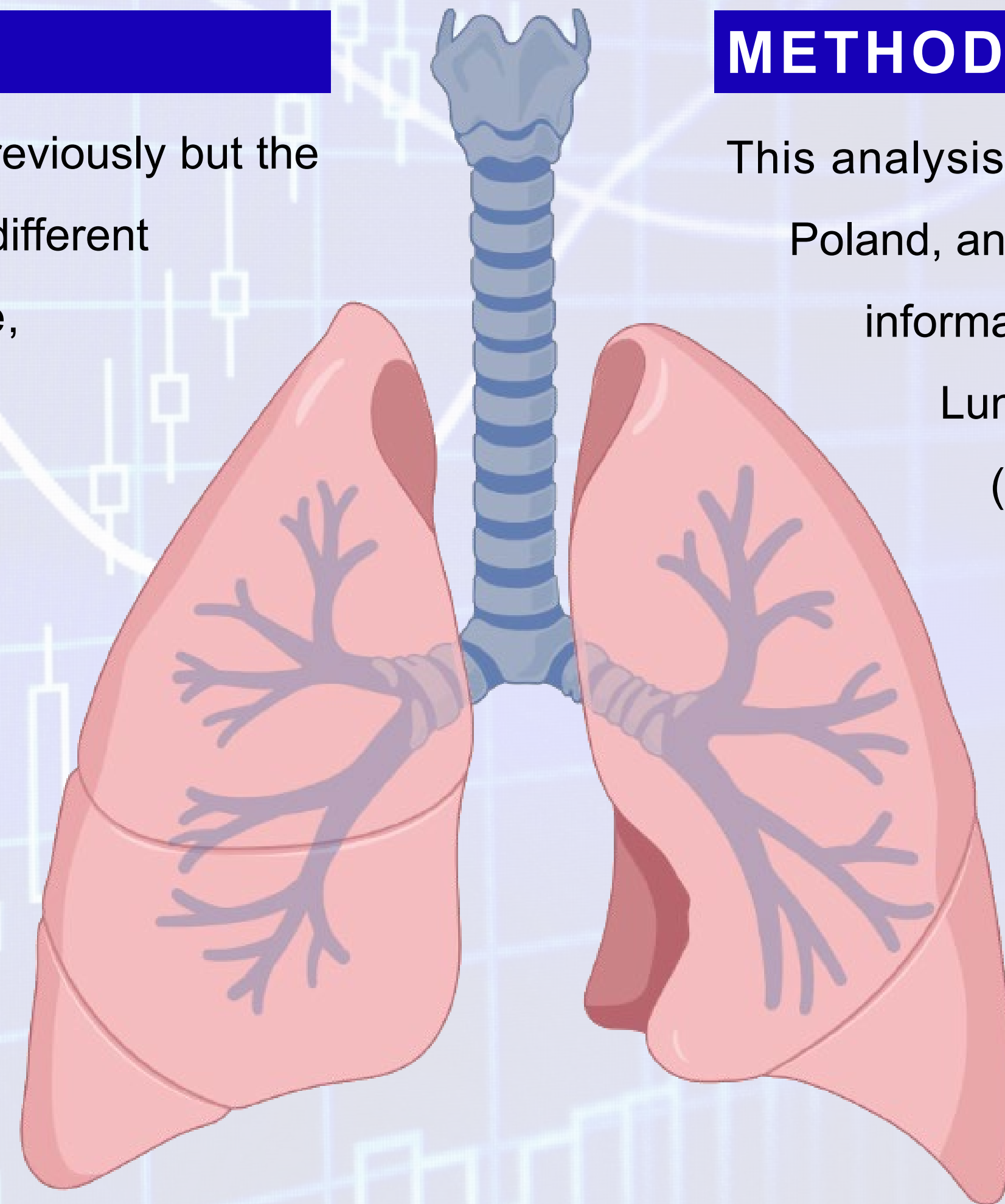
This study aimed to assess the risk of impaired lung function of older adults by socioeconomic status at three time points in life. Life-course SEP models were assessed to differentiate between trajectories, social mobility, and disadvantage accumulation.

## METHODS

This analysis included 10,160 individuals from the Czech Republic, Poland, and Lithuania (aged 45–70 years in 2002–2005) with complete information on pulmonary function tests.

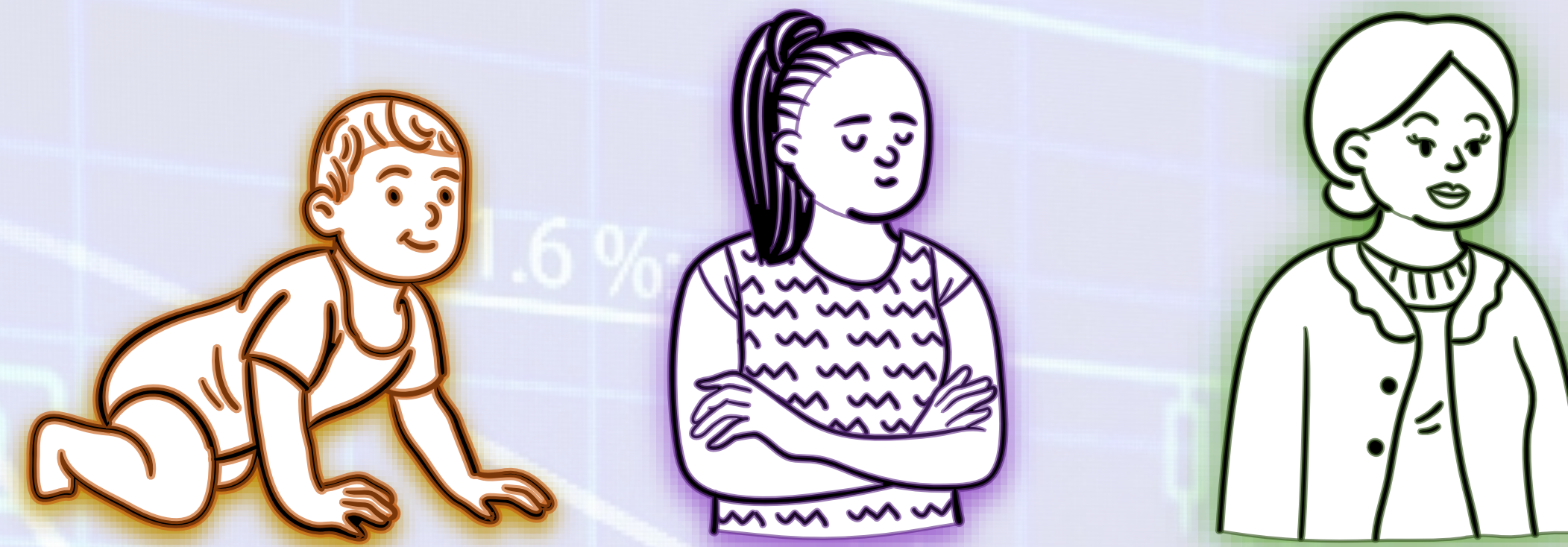
Lung function was classified as normal if values of FEV1/FVC (forced expiratory volume in the first second divided by forced vital capacity) and forced vital capacity were higher than the lower limit of normality and classified as impaired if otherwise.

SEP at three stages of life was assessed using the mother's education (childhood), participant's education (young adulthood), and current ability to pay for food, clothes, and bills (late adulthood). Each SEP measure was dichotomized as advantaged or disadvantaged.



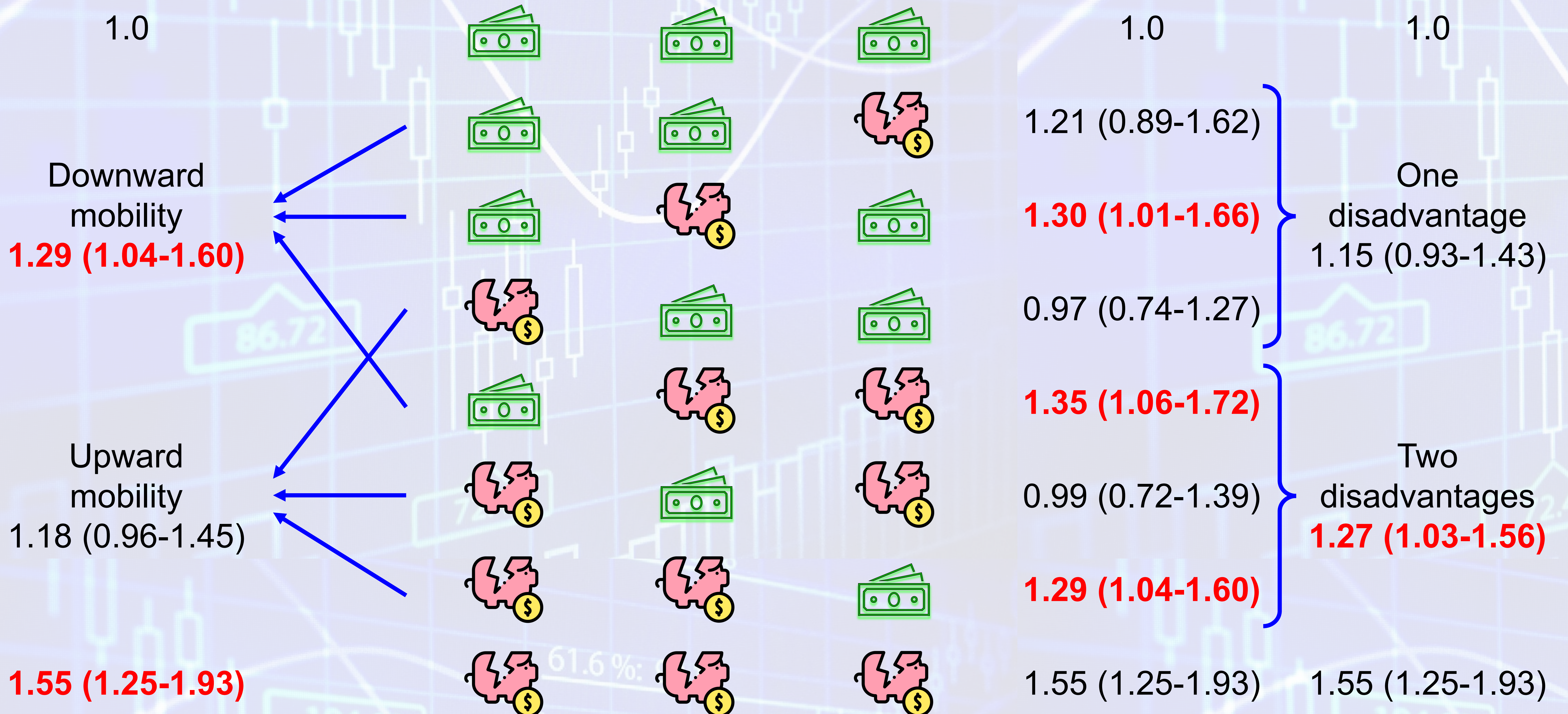
## RESULTS

### Social mobility



### Trajectories

### Cumulative disadvantage



## STATISTICAL ANALYSIS

The associations between the outcome (impaired lung function) and the main exposures and further covariates (age, sex, smoking status, country) variables were assessed with multivariable-adjusted logistic regression models.

With dichotomized SEP variables, 8 different course life trajectories were tested. Individual's social mobility was categorized as: upward when a person started in a disadvantaged SEP in childhood and moved to an advantaged SEP during young adulthood and/or late adulthood; by contrast, for downward mobility, individuals had an advantaged SEP during childhood but disadvantaged SEP later in life. Finally, the cumulative score represents the sum of the times a person was in a disadvantaged SEP.

## CONCLUSION

This study shows that disadvantaged SEP was associated with higher odds of impaired lung function in life-course analysis. Models that used three time-points concerning SEP had a better fit than one time-point. Hence, we concluded that reducing socioeconomic inequalities may contribute to reducing the risk of impaired lung function in adults.